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A History of Timber Resource Use in the Development of Cache Valley, Utah

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A HISTORY OF TIMBER RESOURCE USE IN THE DEVELOPMENT OF CACHE VALLEY, UTAH

by

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Douglas M. Bird

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INTRODUCTION

It has long been realized that the forests and forest products contributed very significantly toward the economic development of the Western United States. However, the extent of this contribution over a relatively small area has never been fully analyzed. Therein lies the primary justification for this paper. The author hopes that the readers of this paper will, through their reading, gain some appreciation of the major role the forest and its products played in the development of the western community.

Because of some important social differences between the area described in this paper and other western communities, the history herein contained will not be completely accurate for every other western community. But, a certain percentage of the history presented for Cache Valley would generally apply to any western community founded near forests.

There are several important questions that this study should try to answer. Among these are: What products were most widely taken from Cache Valley's forests? Which geographical areas were the most heavily logged and for what reasons? To what extent did the early forests contribute to the economic well-being of the early communities? To what extent have these forests been depleted and what were the principle causes of this depletion? These questions and many more are to be answered, though some more completely than others.

The preceding questions alone would justify this paper. But one of the more important reasons, if not the most important, is that by studying and evaluating the past history of lumbering uses and abuses in Cache Valley we can better interpret the present conditions. By looking to the past, it may be that we can learn some of the factors that evoke certain responses and manipulate these factors to evoke the wanted responses. Therein lies the true value of any historical research - a look into the past in order to better anticipate and manage the future.

Physical description

Cache Valley is a mountain-surrounded valley partly in Southern Idaho and partly in Northern Utah. The valley is elongated, some sixty miles long and fifteen miles wide. The mountains surrounding the valley reach elevations up to 9,980 feet, the elevation of Naomi Mountain. The valley is well drained by the Bear River and its main tributaries, Logan River and Blacksmith Fork River. Numerous other tributaries enter into these main streams, mainly along the eastern mountains. There is more than adequate water in the valley due to the large snow pack formed on surrounding mountains, both east and west, every winter. This water is primarily used in agricultural pursuits by the residents of the valley. This water originates and is primarily stored in the forests surrounding Cache Valley. This munificent water, coupled with the readily accessible timber in the canyons, were the major factors in determining the location of the early communities in Cache Valley.

Biological description

At the present, there are several forest tree species growing in the foothills and mountains surrounding Cache Valley that could, and do, have an economical value. On the foothills adjacent to the valley floor is found the Utah juniper (Juniperus osteosperma). This species has relatively little value at the present time other than for occasional use as fence posts. The juniper was the species that the early settlers in Cache Valley depended upon to build their fences and farm buildings. This tree, along with the cottonwood, was probably the first of the valley's native tree species to be used by the white settlers.

Above the juniper, ranging from approximately 4500 feet to 7500 feet, is found the Douglas-fir (Pseudotsuga menziesii). Douglas-fir is a good lumber producing species, but at present is rather small and sparse in Cache Valley's mountains. The Douglas-fir areas have been mostly logged over and, as will be shown later, burned extensively. This species is primarily represented by trees having a diameter of eight to fourteen inches and a height of fifty to seventy feet. This size is not quite economical for harvest, at least at the present, considering the location, amounts involved, and the competition from lumber products produced elsewhere. However, some Douglas-fir at the higher elevations in the eastern mountains are larger and are furnishing a few logs for small sawmill operations in and adjacent to Cache Valley. This was the species that was cut in the 1870's and the 1880's for practically all purposes.

At slightly higher elevations is found the quaking aspen (Populus tremuloides) and then still higher, and in mixture

with the aspen is found the Engelmann spruce (Picea engelmannii) alpine fir (Abies lasiocarpa). Some lodgepole pine (Pinus contorta) is also found at this same elevation, but not to any large extent. Aspen has recently found a market in furniture manufacture and this may be the answer to the use of the aspen on the mountains surrounding Cache Valley, but this is unlikely in the immediate future due to the small concentrations of this species and relatively small diameter of the average tree.

The spruce-fir mixture is presently being used for lumber but not to any great extent. The small area available coupled with the competition from imported lumber makes any permanent, relatively large logging operation uneconomical. The lodgepole pine is being cut for fence posts and for corral poles, but again not enough to add any appreciable figure to the valley's economic wealth.

Thus, it is readily seen, that Cache Valley is not presently receiving any appreciable amount of income from its timber, either due to the lack of quantity or to the lack of quality.

General history

Cache Valley was first settled by a group of Mormon pioneers under the leadership of Peter Maughan in 1859.[1] Previous to this, Cache Valley was visited by several groups of trappers and explorers searching for furs. Jim Bridger, one of the most famous trappers and explorers of the early west, visited the valley in 1824-1825. He noticed the timber resources of the valley and

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[1]Rex J. Haddock, "A History of Cache Valley, Utah from the Fur Period to Year 1869" (Unpublished Master's thesis, Dept. of History, Utah State University, 1953), p. 221.

stated, "In some places we would meet with heavy bodies of timber and would have to cut our way through. In the Bear River Valley there is Oak timber, Sugar trees [most likely Box Elder], Cottonwood and Pines."[2] Also, in 1851 a company of men were sent out from Salt Lake City to Cache Valley in pursuit of a band of indians who had stolen some horses. These men considered the valley "the best they had seen in the territory for soil, timber, and water."[3] Maughan himself stated, in 1859, that "there is plenty of timber, consisting of pine, maple, and quaken asp. Messrs.Edwards and company are building a sawmill, which is expected to be completed in a short time."[4]

These quotes show that Cache Valley had a plentiful supply of timber. It is also evident that this timber constituted a major part of the basic reasons for settling the valley.

One of the primary bases for determination of the location of Cache Valley's communities was the availability of forests and their products, chiefly timber and water. Logan was settled because trees were readily available from the adjacent canyons and water was available from the Logan River. Almost as soon as a settlement site was decided upon, a sawmill was built to provide the needed lumber to construct homes, barns and meeting places.

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[2]Neil W. Owen, "An Analysis of the Past History and the Future of Small Sawmills on the Cache National Forest" (Unpublished Bachelor's thesis, Dept. of Forest, Range and Wildlife Management, Utah State Agricultural College, 1937), p. 2.

[3]Journal History, L.D.S. Archives, Salt Lake City, Utah, July 10, 1851, p. 1.

[4]Haddock, loc. cit., p. 23.

The lumber sawed was not of the highest quality but it sufficed until a better grade could be obtained.[5]

Both the east and the west side of the valley contributed to the area's supply of timber. The west side, the Wellsville Mountains, supplied timber for Wellsville, Mendon, and to other "west side" communities, but the majority of the forest products was produced from timber grown on the eastern mountains. The Cache County Court records do show that by 1866 a sawmill was built on Spring Canyon near Wellsville, but relatively few of the valley's total number of mills or forest-dependent industries developed in the west side communities.[6] It is safe to assume that these mills on the west side did contribute somewhat to the valley's lumber supply, however, the Wellsville Range was depleted of its timber much sooner than the east mountains. This is shown by the fact that during the 1870's and the 1880's, during the heaviest period of logging in Cache Valley, scant mention is made of the Wellsville Mountains or their timber resources.

As previously mentioned, Cache Valley was first settled by a group of Mormon pioneers led by Peter Maughan. Maughan and his followers first settled in Wellsville, on the west side of Cache Valley, in the early part of 1856. The next community to be settled was the town of Logan in April of 1859. Then came Providence in the same month of the same year, Mendon, west of Logan in May, Richmond in July and Smithfield in October; all in 1859. The other communities followed in equally rapid sequence until by 1861

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[5] Herald Journal (Logan, Utah), August 5, 1960, p. 6.

[6] Cache County, "A" County Book of the County of Cache (1866).

virtually all the communities now in the valley were settled.[7]

The first canyons that were opened up were Blacksmith Fork and Green canyons, since they were easily accessible. Logan Canyon was not opened up until later due to its steepness and rocky character.[8]

Because of the ideal location, the plentiful water and other natural resources, Cache Valley continued to grow. The valley became an agricultural center and Cache's farm products were shipped throughout the neighboring areas, even as far as to the mines in Montana.

In the 1880's the valley's mountain resources provided an impetus to the valley's economic well-being in the form of railroad ties. The valley's timber was harvested and hewed into ties. These ties helped to keep the railroad boom going that infested the nation in the 1870's and 1880's like the gold fever of the 1840's.

After the railroad boom died, the valley settled once again into an agricultural economy with a few local manufacturing factories supplying primarily the local needs. This is the condition the valley continued in right up to the present. The local emphasis has shifted from agricultural products to dairy products, but this is primarily the same; still the land supplies the base for Cache Valley's economy.

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[7]Haddock, loc. cit., p. 221.

[8]Willis A. Dial, "A Study of the Early Industrial Development in Cache Valley" (Unpublished Master's thesis, Dept. of Education, Utah State Agricultural College, 1951), p. 12.

BRIEF HISTORY OF THE LUMBER INDUSTRY IN UTAH

The history of lumbering and the lumber industry in Utah has never been completely written. This paper does not claim to cover the subject in its entirety. These few pages, the same as most other articles upon this subject, will only hit the high spots. The reasons for this paper are not complex nor numerous. The reasons are simple - to give the reader an appreciation of the impact of lumbering in Utah and to further the reader's interest so that he will be influenced to examine further into Utah's lumbering history.

The forests and forest products have always been important to Utah. But just how important? To what extent did the use of the forests by the early settlers contribute to the economic well-being of the early communities? What products were the most often made from Utah's trees? Which geographical areas contained forests and where did the early lumbering take place? To what extent were these areas logged and for how long? These are some of the questions this section will attempt to answer. It is hoped that through answering some of these questions the reader will attain a more complete understanding of the effect of lumbering upon the lives of Utahans, past and present.

Physical and biological description

Utah is a land-locked western state bounded on the north

by Idaho, the east by Wyoming and Colorado, the south by Arizona, and by Nevada to the west. The land is mostly above four thousand feet elevation and rises up to Kings Peak which is 13,498 feet high. The majority of the mountain ranges run north and south with the exception of the Uinta Mountain range, which runs east and west. Most of these mountains are covered with some sort of dendro-vegetation. The climate is rather moderate, ranging from about an average low of 20° Fahrenheit in January to an average high of approximately 100° Fahrenheit in August.

The timber species growing in Utah are mainly Douglas-fir (Pseudotsuga menziesii) in the northern part of the State and ponderosa pine (Pinus ponderosa) in the south. There is some logging of lodgepole pine (Pinus contorta) in the eastern part of the State and in minor amounts in the north. Aspen (Populus tremuloides) is ever present and is becoming more and more of a desired species, with two sawmills set up exclusively for aspen at the present and other mills processing aspen logs. Juniper (Juniperus spp.) is always being cut for posts, especially in the central and southern parts of the State. Engelmann spruce (Picea engelmannii) is found at the higher elevations and is an important lumber species. There are several minor timber species, such as limber pine (Pinus flexius), cottonwood (Populus spp.), and some hardwoods.

The western part of the State of Utah is mostly semi-desert, consisting of shadscale (Atriplex spp.), sagebrush (Artemisia spp.), and related species. There are a considerable amount of salt and alkali flats throughout Utah but mostly in the western one-half of the state.

General history

Utah was settled in 1847 by members of the Mormon religion. They first settled in Great Salt Lake Valley and moved north and south from this central point. Communities were established by the Mormons throughout the territory, the only prerequisite for settlement being an adequate supply of timber and water.

One of the first items built in each newly established community was a sawmill. This was needed to provide the boards and wood products necessary to construct any kind of permanent structure. The sawmill was often the hub of activity within the beginning community. The sawmill was the place where the neighbors could congregate, and often served as the gossip center of the village.

As the population of the territory grew, so did its industries, including lumbering. But lumbering, unlike other manufacturing industries in Utah, peaked out in the late 1880's and slowly dropped off to the rather insignificant position it holds today.[9]

Main areas logged and principal products

The primary areas where logging has occurred, and is occurring, are naturally in the mountain areas. The first area logged was, of course, the mountains around Salt Lake City. Next came logging on south down the Wasatch Mountains. Then, as the settlers moved into other areas, came Utah County, Cache County, Uinta County, Sevier County, and Southern Utah around St. George and Cedar City.

The products produced from the forests of Utah were many and varied. The primary product was, of course, sawed lumber to be

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[9]U.S., Bureau of the Census.

used in construction. Next came the ties for the building of the railroads and shingles for the roofs of houses and other buildings. Hundreds of thousands of trees were cut for posts and poles. The secondary products were bark, for tanning purposes, pulpwood, and miscellaneous wood products.[10]

History of lumbering

The lumbering industry in Utah started with the first settlers in 1847. A mill was set up on what is now known as Bingham Canyon in Salt Lake City proper, and operated the latter part of 1847. Then in 1848 two other sawmills were established on Mill Creek, south and east of Salt Lake.[11] Then, in 1849, Ezra T. Benson, with some of his associates, were given a permit for saw and building timber in Pine Creek and Middle Creek canyons. These men built a sawmill and operated it for sometime, selling their sawed lumber for twenty dollars per thousand board feet.[12]

From this meager start the lumber industry grew with enormous strides. By 1853 there were over one hundred sawmills in operation in Utah. These mills produced boards, charcoal, gun powder (from willows), drum sticks, flutes and even a certain amount of pulp for paper manufacture.[13]

Early in the State's history a concept of public ownership

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[10] Utah - Resources and Activities, Dept. of Public Instruction, Charles H. Skidmore, Superintendent, Salt Lake City, Utah, 1933, p. 69.

[11] Ibid.

[12] "Symposium - Conservation of Natural Resources in Utah," Utah Academy of Sciences, Arts and Letters, Vol. 19 and 20, p. 2.

[13] Utah - Resources and Activities, loc. cit.

of timbered lands developed, but this concept had a strange twist. Brigham Young declared, early in Utah's formulative years, that "there shall be no private ownership of the streams that come out of the canyons nor the timber that grows on the hills. These belong to the people: all the people!!"[14] But even as Brigham Young stated this policy, he gave control over these streams and this timber to private citizens. As previously mentioned, Ezra T. Benson was given control over all the timber in Pine and Middle creeks. As another example, George A. Smith was given control of the timber in the canyons west of Jordan, Utah. His "gift" was passed as an early conservation ordinance (December 3, 1850) and read as follows:

> Ordinance of the State of Deseret: An ordinance, in relation to the timber in the mountains west of Jordan.
>
> Sec. I. Be it ordained by the General Assembly of the State of Deseret, that the exclusive control of the timber in the Kanyons [sic] on the east of the range of mountains west of Jordan, in Great Salt Lake County, is hereby granted to George A. Smith, who is hereby authorized to control timber in said Kanyons [sic], to work roads into them; and to direct when, where, and by whom, timber may be taken out therefrom.[15]

It is easily seen that these grants gave a private citizen, in all actuality, ownership of the timber, even if all the timber was supposed to be free to all citizens alike.

The value of the products from the sawmills increased as the population of the State increased. In 1850 the State of Utah valued her timber products at $14,620. In 1860 the value had risen

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[14] Avery Craven, "Utah and the West", The Western Humanities Review, Vol. 3 (October, 1945), No. 4, p. 282.

[15] "Symposium - Conservation of Natural Resources in Utah", loc. cit., p. 3.

to $119,145 for an increase of over eight times in ten years. The exact number of mills in 1860 is not known, but it is safe to say that it was somewhere around one hundred producing mills.

In 1870 there was another increase in product value. The total product value of the saw and planing mills products was $662,731. This was produced by ninety-five sawmills and one planing mill. These mills employed over five hundred men and payed over $140,000 a year in wages. These mills had a capital value of close to $400,000.[16]

Even as far back as the 1870's Utah was conscious of the lack of suitable native timber in sufficient amounts to fill her needs. In an article in the Utah Herald of August 13, 1874, this need was stated:

> Fortunately for Utah...she is supplied with what we believe to be inexhaustible beds of coal...But in the supply of trees suitable for good lumber Utah is far behind her western neighbor [California]. What we in this territory ought to do is, first to save what we already posses, and second, to plant trees for future use...We believe the following varieties will do well in our valleys: ash, cottonwood, maple, walnut, and in some localities, oak and hickory.[17]

The Utah Board of Trade stated, in 1879, that "the territory will always have to import its hard and finished woods" and some of its lumber due to the lack of suitable clear, high quality lumber.[18]

It is thus recognized that Utahans realized the need for

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[16] U.S., Bureau of the Census, Twelfth Census of the United States: 1900. Manufacturing.

[17] Journal History, L.D.S. Archives, Salt Lake City, Utah, August 13, 1874.

[18] The Resources and Attractions of Utah, A report prepared by the Utah Board of Trade, 1879.

timber early and tried to increase their land's production far sooner than did most of the people in the United States.

Throughout the 1870's the lumber industry continued to climb. By 1875 there were one hundred and twenty-eight sawmills in Utah which produced 20,772,800 board feet of lumber valued at $491,660. There were also fifteen lath and planing mills producing products valued at $125,780. Utah was also using native bark, taken from home-grown Douglas-fir, for tanning purposes. In 1880, the lumber industry started to decline. There were only one hundred and seven sawmills in 1880 producing 25,709,000 board feet of lumber, 1,580,000 laths, 9,293,000 shingles, all valued at $375,164. The number of employees also dropped from 1870's five hundred men to three hundred and eighty-five men and they were only paid $65,125 in 1880 compared to 1870's total wages of $100,000.[19]

By 1880 the lack of lumber was very noticeable to the Utahans. The census of 1880 stated that "in general, in Utah, north of latitude 40°, the west base of the Wahsatch [sic] Mountains has been stripped of the available timber...the dearth of good fencing material is very noticeable throughout Box Elder, Cache, Rich, Weber, Morgan, and Salt Lake Counties."[20] The census also reported that Utah was supplied "almost entirely with lumber from the eastern slopes of the California sierras and from Chicago."[21]

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[19]U.S., Census, 1900, loc. cit.

[20]U.S., Bureau of the Census, Tenth Census of the United States: 1880. Manufacturing.

[21]Ibid.

In the 1880's Utah started importing a major portion of its lumber and other forest products from neighboring states. The Utah Central Railroad alone showed imports of 117,902,600 board feet of lumber from January 1880 to May 1884. The Union Pacific Railroad could have been expected to have hauled a considerably larger amount.[22]

By 1890 the lumber industry had further decreased. There were only thirty-two sawmills in 1890 producing $249,940 worth of products. These mills employed two hundred and fifty-six men and paid wages of $58,901. There were also sixteen planing mills in operation in 1890. These planing mills manufactured products worth $753,350. The Utah sawmills of 1890 had reduced their railroad tie production to one thousand ties. These ties were worth only one hundred and eighty dollars.[23]

In the 1890's came the big push in Utah for conservation. A forestry association was organized with a professor from the University of Utah as president in 1894.[24] Then in 1897, the Uinta Forest Reserve was set aside by the Federal Government. In 1902 the Cache and Aquarius (in Garfield County) were set aside.[25] Other forest reserves followed in quick succession until by 1907 practically all the National Forests now in existence in Utah were established.[26]

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[22] Ibid.

[23] U.S., Census, 1900. loc. cit.

[24] Deseret News (Salt Lake City, Utah), September 15, 1894.

[25] Deseret News (Salt Lake City, Utah), May 12, 1902.

[26] Establishment and Modification of National Forest Boundaries - A Chronologic Record - 1891 - 1962, Compiled in the Surveys and Maps Branch, Division of Engineering, U.S. Forest Service, Washington D.C., September, 1962.

In 1900 the industry started to climb again. There were forty-eight sawmills operating in 1900, but with a product value of only $186,905. There were also forty-eight logging camps in 1900 in Utah. These camps were located mostly in the Wasatch Mountains and in Southern Utah in the ponderosa pine country. The stumpage had a value of $1.32 per thousand board feet. None of these forty-eight sawmills were large enough to cut over five thousand board feet a day, which would account for the small amount of employees, only one hundred and thirty. Utah was not producing any ties in 1900, but there were seventy-five canal or log chutes that were used in log transportation plus approximately forty planing mills.[27]

TABLE I

NUMBER OF SAWMILLS IN UTAH
BY DECADES[a]

Year	Number of Sawmills	Number of Employees	Value of Products
1850	4		$ 14,620
1860	90		119,145
1870	95	538	661,431
1880	107	375	375,164
1890	32	256	249,940
1900	48	243	186,905
1905	41	89	133,044

[a]Calculated from: U.S. Department of Commerce, Bureau of the Census.

[27]U.S., Census, 1900, loc. cit.

TABLE 2

NUMBER OF LABORERS ENGAGED IN LUMBERING[a]

Date	Occupation	Number	
1860	Lumbermen	14	
	Shingle - makers	4	60
	Sawyers	42	
1870	Lumbermen, raftsmen, and wood choppers	64	102
	Sawmill operators	38	
1880	Lumbermen and raftsmen	115	
	Saw and planing mill operators	181	409
	Wood Choppers	60	
	Sawyers	53	
1890	Lumbermen and raftsmen	140	
	Saw and planing mill operators	181	442
	Wood choppers	151	
1900	Lumbermen and raftsmen	148	
	Saw and planing mill operators	95	262
	Wood choppers	19	
1910	Lumbermen, raftsmen and wood choppers	25	
	Saw and planing mill operators	78	
	Owners and managers of logging camps	7	132
	Sawyers	22	

[a]U.S. Department of Commerce, Bureau of Census, 1860, 1870, 1880, 1890, 1900, and 1910.

As an outgrowth of the conservation movement in the 1890's, the Utah State Government became interested in the conservation of Utah's natural resources. An act of March 27, 1907, created the Utah Conservation Commission. This act provided that the commission is to:

1. Collect and publish statistics and data relative to the natural resources of the State of Utah.

2. To place before the Legislature and Executive Departments of the United States including the National Reclamation Service data and facts showing the great value of the arid lands in Utah when subject to irrigation...

3. To aid the Forestry Department of the United States in the protection of the timber lands and watersheds in the State of Utah, and also to procure equitable privileges for the users of National Forest Reserves in the State of Utah.[28]

By examining the previously stated statistics, one can readily determine the effect the lumbering industry has had upon the economic well-being of Utah's communities. Although the effect lumbering has had upon the total economic life of Utah has declined since the 1880's, the effect has always been present.

Lumbering in Utah moved with the settlers. The first logging was centered around Great Salt Lake Valley, then it moved south to Utah County and Provo and Springville canyons. Then the major impetus to logging moved to Cache County in the 1870's and the 1880's. After Cache County was all logged out, the industry moved to Southern Utah around Cedar City and Eastern Utah around Vernal. Here the ponderosa pine and the lodgepole were cut and sold. Now the main areas of lumbering activity are still centered around Southern Utah and in

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[28] First Biannial Report of the Utah Conservation Commission The Arrow Press, Salt Lake City, Utah, 1913.

the Uinta Mountains. The principle species logged are still the ponderosa pine, the Engelmann spruce, the Douglas-fir and the lodge-pole pine.

CONSTRUCTION OF COMMUNITY SERVICE BUILDINGS

One of the principle factors providing an impetus to the lumbering activities in Cache Valley was the construction of the Mormon Tabernacle and the Mormon Temple, both in the City of Logan. The construction of the Tabernacle began earlier than the Temple. Because of this, the Tabernacle construction in relation to the lumber activities will be considered first.

Building the Tabernacle

The Logan Tabernacle, located at the junction of Center and Main streets in Logan, is a large castle-like building constructed of native rock and wood. This building is used by the Mormons as a meeting center, both for religious purposes and community meetings.

Construction of the Tabernacle began on January 21, 1865.[29] A good stand of Douglas-fir was located on the face of the mountain between Logan and Green canyons.[30] It is felt that due to the elevation of the mountain between Logan and Green canyons, the Douglas-fir trees which were taken in this location must all have come from minor drainages between these canyons. Also, this species of tree

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[29]Edward W. Tullidge, Tullidge's Histories of Utah, Vol. II (Salt Lake City, Utah: Juvenile Instructor Press, 1889), p. 537.

[30]Merlin R. Hovey, "An Early History of Cache County", (Unpublished paper in the Utah State University Library, Logan, Utah, 1936), p. 44.

would have been on the north and east aspects of these minor drainages. These trees were cut and slid down the mountain at a place called "Tabernacle" or "Knowles" slide. This slide was built of timbers, poles and rock laced together to make sort of a flume down which the logs could slide.[31] This slide was probably located adjacent to the small drainage just south of the mouth of Green Canyon. This drainage is the longest of the three drainages between Green and Logan canyons and runs from the east to the west giving it a rather long north-facing slope. The logs were slid down the slide, or pulled by oxen and horses when gravity failed, to the bottom of the slope where they were loaded and hauled into Logan where the sawmills converted the logs into lumber. The primary sawmill used at this time was the Charles O. Card sawmill located near the present Eighth Ward Mormon Church in Logan.[32] This mill was a water-powered mill and had a daily capacity of approximately six thousand board feet of lumber but produced only about one-quarter of a million board feet per year.[33]

This source of lumber, the "Tabernacle Slide" area, for the Tabernacle ran out in about 1868 and it became necessary to locate more and better timber. A thick grove of Douglas-fir was opened up in Logan Canyon, at Tabernacle Hollow, near what is now called Woods Camp. The trees were cut at this point and slid down the mountain slope to the Logan River. The logs were kept in the river until

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[31] "A" County Book, op. cit., January 6, 1873.

[32] Hovey, loc. cit., p. 45.

[33] U.S., Bureau of the Census, Tenth Census of the United States: 1880. Manufacturing.

high water, then they were floated down the river into the City of Logan. A log boom was set up on the river adjacent to the Card Sawmill where the logs were hauled out of the river and taken to the mill. Here they were sawed into the proper dimensions for use in the Tabernacle.[34]

There soon became a need for a softer wood than Douglas-fir and so a stand of Engelmann spruce, then called white pine, was located in what is called White Pine Hollow. This hollow is just above Tony Grove, about thirty miles up Logan Canyon from the City of Logan. Peter Maughan, the founder of Cache Valley, constructed a sawmill at Red Banks, along the Logan River adjacent to Tony Grove, to process these spruce logs.[35] This water-powered mill was put into operation early in the 1870's and continued to run for several decades, changing owners several times.[36] This mill sawed a majority of the spruce lumber used in the Tabernacle and in the Logan Temple. The lumber processed at the Red Banks mill was hauled down Logan Canyon by teams of horses, not floated as were the unprocessed logs previously mentioned which were taken from Tabernacle Hollow.

This stand of Douglas-fir in Tabernacle Hollow was depleted in the middle 1870's and it became necessary to find another readily accessible stand of this species. This new stand was located up Temple Fork Canyon, a tributary canyon to Logan Canyon which enters Logan Canyon about twenty-three miles up the main canyon from Logan.

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[34]Hovey, loc. cit.

[35]Ibid.

[36]Interviews with J.L. Montrose, Logan, Utah, throughout the winter of 1960-1961.

The acquisition of this timber, along with the operation of the sawmill built in this area, will be covered in conjunction with the Temple construction.

These were the primary mills used and the primary areas logged in conjunction with the building of the Logan Tabernacle. Other sawmills and other areas throughout the valley also figured into the Tabernacle construction but to a much less extent.

Building the Temple

The early settlers in Cache Valley started planning for their Temple as soon as they arrived in the valley. It seems that in all the communities of the valley, one of the main desires of the early settlers was to get their Temple built. This was to be the most commanding building in the valley, exemplifying the residents' strong religious feelings.

Work on the Temple started on May 17, 1877. A hill within the boundaries of Logan City which commanded a view of the whole valley was selected as the location of the Temple and construction commenced.[37]

The construction of the Temple involved people from all over Cache Valley, and also into neighboring valleys such as Bear Lake Valley. These people came to work off their duty to their church by helping to build this rock and wood monument. Three months after the ground was broken for the Temple, men had collected to work off their religious debts to the extent that over one hundred persons were engaged in construction activities. The Deseret News of August

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[37] SUP News - Official Publication of the National Society, Sons of Utah Pioneers (Vol. 6, No. 11, November, 1959), p. 9.

23, 1877 tells us that "there are over 100 men engaged in connection with the building, in the various departments, quarrying rock, making roads to the timber, getting out the timber,..."[38]

One of the first things to be done in constructing a building such as this Temple was to locate a dependable source of raw timber and develop a way to convert this raw wood into usable products. The first was found up Temple Fork Creek, about twenty-three miles from the present boundaries of Logan City. A good stand of Douglas-fir was located up Temple Fork and a sawmill was constructed on the creek to process the logs resulting from cutting the above stand. A road was built into the mill site in the summer of 1877 and the sawmill was completed on November 4, 1877.[39]

Men working at the Temple Sawmill came from all areas of Northern Utah and Southern Idaho. The time they spent working on the Temple counted toward their tithing and, along with this, every ward (a geographical division within the Mormon Church) in Cache Valley and surrounding areas was required to send a certain number of men to work on the Temple and a certain percentage of these came to work at the Temple Sawmill. This labor force assessed to each ward was determined by the population within the ward. Through the used of the above method, the Temple Sawmill was always supplied with a readily available and constantly fluctuating labor force. In this way the mill was able to function without the necessity of realizing a profit, since money was not needed to pay wages. Also, the men

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[38] Deseret News (Salt Lake City, Utah), August 23, 1877.

[39] Mary Henderson, "History of Utah - Historic Sites and Landmarks", Vol. 1 (Typed manuscript located in the State Historians Office, Salt Lake City, Utah).

working at the Temple Sawmill did so out of deep religious convictions and, according to the newspaper reports of the early 1880's, a better production per man was attained this way than if the men just worked for wages.[40]

The use of the conscription method of getting a labor force also caused some problems. This method provided for an untrained labor supply practically every week. By the time a man became acquainted with the working methods of the sawmill, his "hitch" was up and a new man replaced him. Only the mill superintendent was a permanent fixture at the mill. This caused inefficiency in the sawmill operation and contributed to an excessive accident rate.[41]

This method of "requesting" men to work at the mill continued until 1883. After that year, and continuing until cessation of work at this mill location, the men were hired and paid wages, as well as being allowed free tithe. This allowed the Temple Sawmill to keep a nucleus of trained personnel employed at all times.[42]

This mill employed about eighteen to twenty men plus three cooks. The men worked for about $2.50 per day, but payment for board had to come out of their wages. Some of this board charge was covered by provision that the men brought from their homes. The charge for board was thirty cents a day per person, reduced by the worth of the supplies he furnished from his home larder.[43]

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[40] Bear Lake Democrat (Bear Lake, Utah), October 6, 1883.

[41] Temple Saw Mill Book No. I (Located in the L.D.S. Archives, Salt Lake City, Utah), 1879.

[42] Ibid.

[43] Ibid.

An interesting excerpt from the Bear Lake Democrat of October 6, 1883, tells us a little about the Temple Sawmill operation and life at the mill camp.

> The mill is managed by Brother Philemon Lindsay, and is in excellent order, the logs are obtained about three miles east of here /the mill site on the creek bottom of Temple Fork Creek/ and are hauled on carts down the rapidly descending canyon road to the mill. Lumber is cut at the rate of six to eight thousand feet per day, large quantities of pickets, lath, and shingles are manufactured, and the rough slabs are cut into cord wood, to be floated down to the lime kiln to be wasted, although the logs are small, rough and crooked.
>
> Sister Smith of Logan presides over the culinary department assisted by Sisters Agnes Izitt and Eliza Jinks.[44]

J.L. Montrose tells us of a John Crowther and his two sons, Ed and Joseph, who worked out a six-weeks donation at the Temple Fork Sawmill while living at Laketown, a small town adjacent to Bear Lake approximately twenty-two miles from the mill site. Evidently they did this donation during the period when their farm labor, and other home jobs, were restricted by the winter season. These men walked from Laketown to the mill site in deep snow all winter long, returning to their homes every so often due to recurring jobs at their homes.[45]

This was the use pattern followed by a good many of the families residing in the vicinity of the Temple construction activities. Men, boys, and women came and served their time toward constructing one of their churches most desired buildings. It is evident that this Temple construction was very prominent in the valley resident's activities throughout the construction period. It is also evident

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[44] Bear Lake Democrat, loc. cit.

[45] J.L. Montrose, (Typed Manuscript compiled by Mr. Montrose and kept in his personal possession).

that the basis for this activity rested in the mountain resources surrounding the valley, prominent among these resources being the timber and the timber products.

The Temple Sawmill continued to operate until February of 1886. At this time the mill was destroyed by a fire, the loss amounting to over $3,000. After the mill burned, the remains were sold to private parties and existed as a portable sawmill in many different locations for several years.[47]

The Temple Sawmill ran for over nine years, producing lumber, pickets, lath and other wood products during this period. Its products were used, not only in the Logan Temple and the Logan Tabernacle, but also in private homes, barns, railroads, fences and in many other places of pioneer wood use. This mill employed about twenty men throughout its existence, providing a partial livelihood for over twenty families. Its influence upon the early Cache Valley residents and residents of neighboring valleys was very prominent. The mill helped to open up Logan Canyon for further exploitation and contributed very significantly to Cache Valley's economic well-being. The following table shows somewhat the extent of the economic contribution.

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[46] Henderson, loc. cit.

[47] Montrose, loc. cit.

TABLE 3

TEMPLE SAWMILL STATISTICS

Starting Date	November 4, 1877
Ending Date	February, 1886 (Burned down).
Area Logged	Spawn Creek drainage. Temple Fork Creek drainage.
Species Logged	Douglas-fir plus minor amounts of Engelmann spruce and lodgepole pine.
Average Production	7 MBF per day plus large quantities of lath, pickets, shingles, and slab wood.
Average Yearly Production	2,100 MBF plus undetermined amounts of minor products.[a]
Total Mill Production	17,000 MBF plus undetermined amounts of minor products.[b]
Selling Price	Lumber - $10.00 per M.[c] Siding - $13.00 per M.
Yearly Lumber Value	$21,000.00.
Total Lumber Value	$175,000.00.
Average No. of Employees	20 plus 3 cooks.
Average Wages	$2.50 per day per man.
Yearly Wage Per Man	$750.00 (300 days per year).
Yearly Wage For Mill	$15,000.00 (20 employees).
Total Wages For Mill	$125,800.00 (Period Nov. 1877 to Feb. 1886).

[a]Based upon 300 working days per year.

[b]Based upon 100 months total operation at 25 days work per month equals 2500 days. 2500 days at 7 MBF per day equals 17,500 MBF total lumber production.

[c]Temple Sawmill Time Reports - 1879 (Tullidge stated that the average selling cost for the period 1874 to 1880 was $20.00 per MBF, so the $10.00 per MBF is undoubtably conservative.)

FIGURE 1

TEMPLE SAWMILL - 1880

INFLUENCE OF THE RAILROADS UPON THE TIMBER RESOURCE USE

The use of the timber supply in the mountains surrounding Cache Valley for the building of railroads started in 1871. On August 23, 1871, a company was organized to construct a narrow gauge railroad from Ogden, Utah, to Soda Springs, Idaho, via Cache Valley. Construction of the railroad began on August 26 of the same year at Brigham City, Utah. This railroad was called the Utah and Northern Railroad. The track was completed from Brigham City to Logan on January 1, 1873, and to Franklin, Idaho in May of 1874. The Utah and Northern Railroad connected with the Central Pacific Railroad at Brigham City and also at Corinne, four miles further west.[48]

On February 8, 1874, the railroad was extended to Ogden and operated independently until February, 1877 when it was purchased by the Union Pacific Railroad, made broad gauge, and finally, in 1890, absorbed by the Oregon Short Line System.[49]

The construction of the Utah and Northern Railroad was very likely the first time that Cache Valley's timber had been used for railroad ties. Due to the lack of evidence to the

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[48]Andrew Jensen, Church Chronology: or A Record of Important Events (Salt Lake City, Utah: 1886, typewritten copy in the L.D.S. Archives, Salt Lake City).

[49]J. Cecil Alter, Utah: The Storied Domain - A Documentary History of Utah's Eventful Career (Vol. 1,2, and 3. The American Historical Society, Inc.: Chicago and New York, 1932), p. 489.

contrary, it is assumed that Cache Valley did not contribute much in the way of ties in the construction of the Union Pacific Railroad or any of the branch lines until after the Utah and Northern Railroad had been built into Cache Valley.

The Utah and Northern Railroad provided an outlet for the valley's ties to be used in its own construction and also a method, after the line was completed, to transport ties from Cache Valley to other railroad construction areas.

With the advent of railroad construction in Cache Valley came larger timber companies to better handle the increased demand for wood products. No longer would a small sawmill run by muscle power be sufficient to supply the needed ties and the other forest products. No longer was it expedient for one man or one family to go to the mountains and cut and haul only what he or the family needed. Larger companies and organizations with more efficient operations and greater specialization were necessary to handle the increased volume of timber products that railroad construction demanded.

There were two different types of organizations that obtained ties for the railroads. These were private companies and public co-operatives. The first type, the private companies, were organized by prominent men of the valley and, in a few cases, by capital invested by men residing outside of Cache Valley. The co-operatives were usually organized by a valley municipality, or a sub-division of a municipality such as a ward. These co-operatives, often called United Orders, provided the needed capital to effectively log the mountain slopes and process the logs into the needed product.

Prominent among the private firms that logged in Cache Valley during the railroad construction boom was a Wyoming based firm, the Coe and Carter Lumber Company.

Coe and Carter established their headquarters up Blacksmith Fork Canyon at what is now called Hardware Ranch. This company offered thirty, thirty-five, and forty cents for a tie eight feet long, hewed on two sides, and piled on the river bank. All of the ties cut for Coe and Carter had to be Douglas-fir (Pseudotsuga menziesii). Trees ranging from six inches to eight inches diameter breast high were cut. On an average, two to three ties were obtained from each tree. After the tree was felled, it was limbed and hewed where it lay and cut into the eight foot lengths. Then the "finished" ties were slid or snaked down to the river bank. Employees of the company would then examine the ties to see if they were acceptable. If the tie was up to specifications, the examiners would "brand" the tie with a C; if the tie was not acceptable, it was marked with a X.[50]

The ties would be stockpiled along the river all winter long and when spring would break and the river ran full of water, the men from the companies would come along and float the ties down the streams. The ties obtained in Blacksmith Fork Canyon would be floated down the Blacksmith Fork River into the Little Bear River, from the Little Bear River into the Bear River. In the Bear River the ties were snaked out and loaded onto railroad cars to be shipped to where ever the railroad construction was taking place. Ties were

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[50]Hovey, loc. cit., p. 162.

also floated down the Logan and Little Bear rivers into the Bear River.[51]

Coe and Carter contributed immensely to the economy of the valley during the late 1870's and the early 1880's. Men from all over the south end of Cache Valley; Hyrum, Millville, Paradise, Avon, and Providence went to the mountains to cut ties for Coe and Carter in order to get seldom seen "hard money".[52]

That the Coe and Carter Lumber Company contributed a large percentage of the Valley's revenues is evidenced by the Logan Leader of October 30, 1879. "On Monday last twenty thousand broad gauge ties were started down to Corinne from 'Logan boom'. They were used in repairs on the Central Pacific track. Coe and Carter are the owners."[53]

Again on the same date the Logan Leader mentioned that "Coe and Carter have spent about $60,000 here this season [Summer of 1879]."[54]

Coe and Carter logged in more areas than just Blacksmith Fork Canyon, though this canyon was their principle one. They also logged in Logan Canyon, Hayes Canyon, a tributary of Blacksmith Fork Canyon, and several minor drainages in each of these canyons. Also, the United Orders of several towns in the south end of the valley cut and sawed ties for the Coe and Carter Lumber Company. The United Order Company of Hyrum installed a sawmill up Hayes Canyon, established

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[51] Ibid., p. 163.

[52] Ibid., p. 162

[53] Logan Leader (Utah), October 30, 1879.

[54] Ibid.

several "tie camps" to cut and saw ties for Coe and Carter.[55]

As previously mentioned, the cities and towns of Cache Valley were organized into a rather unique co-operative system called the United Order. Almost every village in the valley had its United Order. It is sufficient to state here that these co-operatives provided the capital necessary to conduct efficient logging during the railroad building era.

The United Order Store of Logan, in 1875, cut and hewed 53,000 ties for the Oregon Short Line. This United Order Store was an outgrowth of the sawmill property of Charles O. Card and Son combined with the planing mill of P.N. Petersen and Son.[56]

Practically every community in the Valley had its United Order Company engaged in some sort of lumbering connected with the railroad business. The United Order of Hyrum, as an example, put a water-powered mill in Hayes Canyon and sawed, during 1878, 5,597 railroad cross ties.[57] Another United Order, the United Order Manufacturing and Building Company, ran by the Second Ward of Logan, used the railroad tie business to keep solvent. In 1881, the latter United Order was expected to fail but the manager, C.W. Nibley, obtained a contract with the Union Pacific Railroad to produce 75,000 ties for the branch line from Granger, Idaho to Puget Sound, and the company was able to survive.[58]

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[55]Hovey, loc. cit., p. 163

[56]Tullidge, loc. cit., p. 540.

[57]Ibid., p. 588.

[58]Deseret Evening News (Salt Lake City, Utah), May 26, 1881.

The extent of the role the mountain resources played in the United Orders of Cache Valley is not often realized. The United Orders of practically all of the communities in the valley were dependent, to a great degree, upon the products of the mountains surrounding the valley. The United Order of Hyrum was based completely upon the natural resources of Blacksmith Fork Canyon. When the timber and the grasses of Blacksmith Fork Canyon were depleted, the United Order declined and, finally, in the late 1880's was completely dissolved.[59]

The extent that the railroad building influenced the United Orders is evidenced by the period of time which the United Orders existed in Cache Valley. The United Orders sprang into being at the time when the demand for railroad ties was greatest.[60] They flourished during the intensive "tie logging" era and when the timber supply was gone, so went the United Orders. To be sure, other factors were present in the formation and extinction of the United Orders, but the role of the mountain resources cannot be understated.

Another type of logging organization neither co-operative nor private was the Latter-day Saint Temple Sawmill. This mill has been discussed previously, but it should be mentioned here that the Temple Mill did more than just produce wood products for the Temple itself. The Temple Mill also sawed and sold thousands of ties for

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[59] Leonard J. Arrington, Great Basin Kingdom - An Economic History of the Latter-day Saints 1830 - 1900 (Cambridge, Mass.: Harvard University Press, 1958), p. 331.

[60] The United Orders were theoretically organized to combat some of the "evil" effect that the early Mormons felt the railroads would bring. Arrington's book, Great Basin Kingdom, which was previously cited, goes into great detail concerning this.

the railroads.[61]

The census report of 1870 shows that there were five sawmills in Cache County operating during that year. These mills produced products with a total value of $21,500.[62] Then, with the advent of the railroad boom, the reports show an increase. In 1880, there were ten mills in the county, producing products worth $41,020. It is certain that the railroad construction influenced this increase immensely.[63]

That the railroad influenced to a great extent the lumber industry is further evidenced by an article in the Salt Lake Herald Journal of August 10, 1877. This article stated that contracts were let, in 1873, with the Utah Northern (originally the Utah and Northern) and the Central Pacific railroads for the sale of all ties and timber which would be logged, hauled, or floated to the valley floor. Ties were taken from the eastern canyons "by the millions". Sufficient number of ties were stockpiled in the Logan rail yard in 1876 to lay fifty or sixty miles of track. Even though these figures are probably exaggerated, they are sufficiently impressive to make one realize the importance of the railroads use on the forest resources.[64]

The railroads used forest products for more than just the

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[61] Hovey, loc. cit., p. 45.

[62] U.S., Bureau of the Census, Ninth Census of the United States: 1870. Manufacturing.

[63] U.S., Bureau of the Census, Tenth Census of the United States: 1880. Manufacturing.

[64] Salt Lake Herald Journal (Utah), August 10, 1877.

initial construction. They also used ties, as previously mentioned, for repairing and rebuilding already established lines. In 1880 alone, the Utah and Northern Railroad used more than $12,000 worth of ties in repairs.[65] It is probable that since the Utah and Northern ran primarily through Cache Valley, that the ties for these repairs came from the valley's mountains. Also, in the 1880's this railroad was converted from narrow gauge to broad gauge. The majority of the ties used in this conversion must have come from the mountains surrounding Cache Valley.[66]

The use of Cache Valley's timber supplies for ties slowly diminished during the 1880's and throughout the 1890's. By 1905 there were no ties at all being produced in Cache Valley.[67]

The railroad also had another effect upon the lumber industry in Cache Valley. Besides the railroad providing a market for the valley's timber products, it also enabled the valley sawmills to ship their timber products to other parts of Utah and to points outside of Utah. In fact, a high railroad freight rate enabled furniture made with native lumber to compete very favorably with furniture made elsewhere. When the freight rates were lowered in 1907, the native furniture industry rapidly declined.[68]

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[65]U.S., Bureau of the Census, Tenth Census of the United States: 1880. Manufacturing.

[66]Alter, loc. cit., p. 489.

[67]U.S., Bureau of the Census, Twelfth Census of the United States: Special Report, 1905. Manufacturing.

[68]Leonard J. Arrington, "The Transcontinental Railroad and Mormon Economic Policy," Pacific Historical Review, Vol. XX, No. 2 (May, 1951), University of California Press, Berkeley and Los Angeles, p. 143.

The railroad also brought into the valley lumber and finished products from "outside". These competitive products usually came from the West Coast. The importation of lumber into the valley caused the market to decrease and helped to slow up the logging in Cache Valley. In the 1890's and the early 1900's the competition of the Oregon and California lumber forced the inferior grades of native lumber to be sold for a much lower price than previously. In 1900 native lumber was selling for approximately eleven dollars a thousand board feet[69] compared with an average coverage price of twenty dollars a thousand board feet during the period from 1874 to 1880.[70] Of course, the quality of the native lumber decreased as the better trees were logged, which would account for some of the decrease in the price of native lumber from 1880 to 1900. But also, the price would go up as lumber became more scarce. Thus, it is apparent that the competition from the coast lumber did influence the price of the native wood and this competition was brought about by the railroads.

The railroad was also prominent in another aspect of forest economics. The railroad transported a multitude of forest products during Northern Utah's formulative years. In 1880, the Utah and Northern railroad carried over 1,300 tons of lumber and other forest products.[71] It is safe to assume that the largest percentage of this tonnage flowed into or out of Cache Valley. This in itself is a large contribution to the valley's economy.

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[69] Interview with A.W. Checketts, early Providence, Utah, settler, January 10, 1961.

[70] Tullidge, loc. cit., p. 558.

[71] U.S., Bureau of the Census, Tenth Census of the United States: 1880. Transportation.

It is easily seen that the coming of the railroad into Cache Valley greatly influenced the use of the forest resources. The millions of ties that were cut, the easier transportation of the forest products, both into and out of the valley, the added money flow brought about by the addition of outside, non-valley, capital, and the labor aspect; all helped to further the expansion and development of Cache Valley. So important was the railroad in the forest products industry that it is meaningless to study the railroad development without considering the timber use along with it.

The early railroad era was centered mainly about the 1870's and the 1880's. With the construction of the Utah and Northern Railroad in 1871 came the major impetus to the use of Cache Valley's forest resources. When the majority of the forest areas were cut and burned, the railroad boom slowly diminished. It is evident that the railroads and the timber supply went hand in hand. When the supply of raw wood products, ties and lumber, ran out, then the influence of the railroad upon the economy of the valley also diminished. In a sense, the railroad boom brought on its own downfall. The railroad used the timber supply of the valley and by using up this resource, caused itself to be less important to the economy of the valley.

ALLIED PRODUCTS

The early settlers in Cache Valley used the valley's timber in many different forms. The first use of the timber was, of course, use in the "round". This was use of the logs whole, not cut or sawed into boards, planks, etc.

Probably the very first use of timber products in Cache Valley was the use of cut sapling poles for fences to keep the settlers' livestock from wandering. Since the early communities were all located at the foot of the mountains and along a stream, the first tree species encountered which would supply wood for building was the cottonwood. This tree was the first species cut and was used, in the round, to build the first homes, barns and other necessary structures.[72]

From the stream sides and the cottonwoods, the settlers proceeded up the foothills to the juniper and then further up the canyons to the Douglas-fir. The juniper was used primarily for fence posts and secondly for furniture. A furniture industry developed in Cache Valley early in the 1870's which depended primarily upon the juniper for the raw wood. Furniture of excellent quality was made from this juniper, its distinctive coloring giving the furniture a very pleasing appearance.[73]

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[72]Hovey, loc. cit., p. 82.

[73]Joseph Carl Felix, "The Development of Cooperative Enterprises in Cache Valley, 1865 - 1900" (Unpublished Master's thesis, Dept. of Religion, Brigham Young University, June, 1956), p. 120.

Cache Valley's timber was put to many uses. A partial list of wood products produced by Cache Valley's residents is shown in the appendix, page 69. However, a few of the more interesting products are listed below.

Tanning

Tanning was comparatively big business in early Cache Valley. The native Douglas-fir bark was peeled from the cut logs and used to supply the tannic acid needed for the tanning process.[74] The first tanneries were built in 1860, one in Logan and one in Smithfield. The tannery in Logan was built by Thomas Win and Joel Ricks along the Logan River where the Farmers Equity building now stands.[75] The tannery in Smithfield was owned by Robert and James Meikle, both of Smithfield.[76] It took approximately thirty cords of Douglas-fir bark per year to run these tanneries and this bark was selling for about $5.00 per cord. Therefore, it is evident that these tanneries contributed a considerable amount of money to early Cache Valley's economy.[77] Also, besides the native bark going into the valley's own tanneries, the bark was shipped to other cities in Utah where the Douglas-fir was not as plentiful as it was in Cache Valley. Local residents harvested the Douglas-fir bark and hauled it by the wagon load to other cities in the Territory to be traded

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[74]Leonard J. Arrington, A Sourcebook On The Economic History of Cache Valley (Unpublished paper in the Utah State University Library, 1956), p. 29.

[75]Ibid.

[76]The History of Smithfield (Published by the City of Smithfield, 1927), p. 63.

[77]The Resources and Attractions of Utah (Prepared by the Utah Board of Trade, 1879), p. 39.

for goods and money.[78]

Broom manufacture

Another interesting wood-allied industry was broom manufacture. Several of the valley's United Orders entered this business in the 1870's. The straw was made from locally grown corn and the United Orders made the handles from native woods. The United Order Manufacturing and Building Company of Logan alone produced, in 1877, about fifty dozen brooms.[79] These brooms were sold for thirty-five cents each throughout Northern Utah and Southern Idaho and were even shipped as far south as Provo, Utah.[80]

Boxes

Boxes were also made in Cache Valley. Messrs. Garff and Haynes built a box factory in Logan early in the 1870's. This factory had a production capacity of two thousand boxes (primarily egg crates) per day. The actual production was about half the capacity, or one thousand boxes per day.[81] Even so, a thousand boxes a day was more than the residents of Cache Valley could consume so a product for export developed. These boxes were shipped throughout the northern part of the State. Another box factory was operated by a Mr. O.C. Bluemel in the 1890's. This factory was located adjacent to the Logan River just south of the amphitheater.[82]

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[78] History of Smithfield, loc. cit., p. 61.

[79] Salt Lake Herald, November 8, 1877.

[80] Hovey, loc. cit., p. 98.

[81] Utah Journal (Logan, Utah), August 6, 1877.

[82] Montrose, loc. cit.

Sawmill manufacture

Another industry which depended upon the timber resources was the sawmill manufacturing industry, even though not involved in actual manufacture of wood products. Cache Valley's sawmill manufacture industry got its start in January of 1876. At this time the United Order Foundry, Machine and Wagon Manufacturing Company was organized. This United Order was established in Logan and, according to the newspapers of this time, was "the first and only one in the territory known to have made saw mills... during the past summer [the summer of 1877] they have made three sawmills at from $600 to $650 and made shafting for two more."[83] This company furnished sawmills, shingle mills, and all kinds of sawmill parts for the Utah Territory up until the end of the United Orders, in the late 1880's. In the period 1877 to 1881 the above company constructed seven shingle mills with a capacity of 20,000 shingles per day and five sawmills with a capacity of ten to twelve thousand board feet per day.[84]

Whiskey

An interesting side light on the wood products industry in Cache Valley was the production of whiskey. A rather good whiskey was produced in conjunction with the lumber at one of the more prominent lumber mills in the valley, the mill owned by Esias Edwards in Millville. Apparently Edwards used the whiskey as an inducement for business as well as for local shipment and trade.[85]

It is apparent through the above that Cache Valley used

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[83] Salt Lake Herald, November 8, 1877.

[84] Tullidge, loc. cit., p. 541.

[85] Hovey, loc. cit., p. 98.

her timber resources in every way possible. The early settler depended upon the timber for a multitude of products and for a very prominent board in the valley's economic platform.

FIRE

The effect of wildland fires in the mountains surrounding Cache Valley were not felt, nor appreciated, until several decades after the fires occured. Even though evidence exists to substantially prove that fires ran rampant through the forested areas from the 1870's up to the turn of the century, little was written about these fires. In talking with early residents of the valley, a feeling comes through that fires following logging and grazing is a natural thing and part of the expected landscape. Fires were plentiful in the "old days" but this was to be expected. This feeling did not seem to change appreciably until around the turn of the century. This change may have been due more to the lack of mountain resources following the heavy exploitation than to an actual change in attitudes upon realization of the extreme waste due to wildfires.

The large fires and numbers of fires in the mountains surrounding Cache Valley coincided well with the heavy use of the mountain resources. Logging for railroad ties, large construction, and the United Orders commenced in the 1870's, as shown on previous pages. The large fires also started showing up in the 1870's. In 1878 there were numerous fires in the mountains, as shown by the following report:

> In the winter and spring of 1878 the company [Hyrum United Order] put up a water mill at Hayes Canyon [in Blacksmith Fork Canyon] and sawed the same 5,597 railroad cross ties

and 1,240,340 feet of lumber. After leaving the mill in the fall, it was burned by the great fires that were in the mountains that year.[86]

The United States Census of 1880 tells us the Cache County had, in the decade 1870 to 1880, one to ten per cent of the timbered area of Cache County burned.[87] This would amount to between five and fifty thousand acres.[88] Even though there is a considerable difference between five thousand acres and fifty thousand acres, it is evident that a large amount of acres in Cache Valley's mountains were burned over in the 1870's. This is especially evident when compared to the figures of 1958 to 1962 which give a total burned acreage burned on all of the present Cache National Forest of 2700 acres. The difference between 1870's burned acreages and 1950's are even further pronounced when one realizes that the base for the 1950's computation is the 1,220,000 acres within the present Cache National Forest and the basic figure used in the computation for the 1870's burned acreage was less than half, or 506,880 acres. But this is still the same area as then and with the same average incidence of non-man-caused fires.[89]

Wildfires continued to burn throughout the 1880's as well. The Deseret Evening News of August 12, 1881 reported the following

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[86]Tullidge, loc. cit.

[87]U.S. Census - 1880, loc. cit.

[88]Based upon the following figures: 22 townships having wooded cover within the county limits. See map #1 in the appendix. 23,040 acres in each township equaling 506,880 acres in Cache County having wooded cover. One per cent of 506,880 is 5,068 and ten per cent of 506,880 is 50,688.

[89]United States Department of Agriculture, U.S. Forest Service.

concerning fires in the Cache Mountains.

> Burning Timbers - The Logan Leader of Friday [August 12, 1881] said that for over two weeks a terrible fire has been raging in the Timber near the United Order Steam Mill, Logan Canyon, which is destroying precious stores of timber. This fire is doing damage to the United Order of thousands of dollars. Its origin is unknown, but is supposed to have started from a fire lighted by some careless person. It is estimated that there are 10 acres of timber destroyed by fire in those mountains, to every acre that is cut down with the axe. There are numerous and extensive tracts of timber in the mountains east of Cache Valley where the trees have been killed by fires that have swept through there within the last few years, since careless campers began to traverse them.[90]

Forest fires continued to burn unchecked through the 1880's, 1890's and up until the United States Forest Service took over management of the land in 1906. A government man working for the newly established United States Forest Service reported, in 1906, that "it can be safely stated that three-fourths of the timbered areas of this reserve [the Bear River Forest Reserve, later becoming part of the Cache National Forest] has been burnt over in the past 20 years. These fires have mostly originated through the carelessness of sheep herders in leaving campfires unextinguished.[91]

Fires continued to burn unmolested through the 1890's and into the 1900's. Several mills burned with a resulting loss consisting not only of the loss in natural resources but also of equipment and buildings.[92] Not only was timber lost but also

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[90] Deseret Evening News (Salt Lake City, Utah), August 12, 1881.

[91] L.L. White, "Report on the Timber Condition of the New Extension, Bear River Reserve" (National Archives, Washington D.C., 1906).

[92] Montrose, loc. cit.

forage for livestock and wildlife. A geologist in 1903 found the mountains east of Cache Valley to be a veritable dust bowl. He was forced to buy feed in the valley because of the lack of forage in the mountains due to the combined effects of over-grazing and fire.[93]

Table 4 on the following page lists a few of the reported fires that burned in Cache Valley's mountains and the date of these fires.

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[93] Joel E. Ricks and Everett L. Cooley (Ed.), History of a Valley, (Cache Valley Centennial Commission, Logan, Utah, 1956).

TABLE 4

LIST OF FOREST FIRES IN CACHE VALLEY
SHOWING YEARS OF BAD FIRES

Year	Remarks
1878	Report of numerous large fires in east mountains in Blacksmith Fork Canyon around Hayes Canyon and in Logan Canyon in the heavy slash areas.
1881	A large fire in Logan Canyon around the present location of the Third Dam. Burned for over two weeks in August. A clean burn with seventy-five year old Douglas-fir now on the burned area with average height of 65 feet and average DBH of 8.0 inches, as of May, 1960.[a]
1880	Reports of several mills burning down from 1880 to 1890.
1890	Reports of numerous small fires in Providence Canyon and in Logan Canyon throughout the 1890's.
1895	A large fire in Stump Hollow in Logan Canyon.
1913	Girls Camp Fire in Logan Canyon. Burned from Guinavah Picnic Camp to the Girl Scout Camp.

[a]Based upon measurement of two separate stands within the burned area consisting of a 10% strip cruise through the stands.

CONSERVATION WITHIN CACHE VALLEY

Conservation within the confines of Cache Valley developed along the same lines as for the State of Utah as a whole. This was explained in the section dealing with the lumbering activities in the State. The only difference there might be is that Cache Valley's residents may have wondered what was happening to her mountain resources just shortly before this wondering was taking place throughout the State. This was probably due to the heavy dependence of Cache Valley's economy upon the mountain resources.

This early wondering is reflected in an editorial in the Logan Journal of August 13, 1874, which was quoted previously on page 13 of this paper. Later, in 1881, the local newspaper, the Logan Leader, was editorializing about the waste and losses resulting from the wildfires in the mountains surrounding Logan and stated:

> We think the Legislature ought to affix the severest penalties to carelessness of this kind /referring to indiscriminate setting of forest fires/, for to burn timber in the mountains is akin to the burning of public buildings or other property belonging to the people.[94]

This was the first glimmering of the conservation movement in Cache Valley. But the first real conservation movement got started when the Federal Government took over the Forest Reserves and began regulating their use. It is not necessary

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[94] Logan Leader (Utah), August 12, 1881.

to go into the federal movement in conservation because the subject is much too long. It is sufficient to state here that Cache Valley reacted to the new federal conservation laws similarly to the rest of the country. The old "free" users of the national forests found it hard to accept the idea that they would be regulated in the amount of timber they could cut and in the areas in which they could log. In fact, according to early residents still living in Cache Valley, some of the old-time loggers resolved their problem with the "government men" by simply logging on land where legally no land existed. This was accomplished by logging on a strip of land along the northern boundary of the State of Utah which was left over when the State of Idaho and the State of Utah made their separate land surveys. In other words, this strip between the states legally did not exist, but actually contained a good stand of timber and the loggers were quick to capitalize on this mistake.[95]

To divulge further into this conservation movement would be pointless because, as previously stated, conservation in Cache Valley developed as it did in the rest of the nation. Then too, by the time the movement was started in Cache Valley the mountain resources had already been exploited to their fullest extent.

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[95]Interview with Frank Foresburg, April 27, 1961.

SUMMARY

This paper has shown the important part the lumber industry played in the early development of Cache Valley. The trees and their products provided shelter, social and educational centers, and a cash crop. All these and many more came directly, or indirectly, from Cache Valley's timber resources.

The use of these resources started as early as the first settlement, 1859, with wood products being used for homes and personal use. This continued to increase with the influx of people into Cache Valley and slowly developed into a more commercial base, rather than simply wood and lumber for personal use. This commercial use reached its peak in the 1870's and 1880's when the building of the railroads and the construction of the large religious buildings demanded a large supply of wood and wood products.

From 1888 up to 1910 the use of Cache Valley's timber slowly decreased. The competition of lumber produced elsewhere, coupled with the decreasing availability of prime lumber trees, caused this decline.

But even though the importance of the lumber industry to the total economy of Cache Valley declined, it was always present. The industry branched out into miscellaneous products, such as broom sticks, barrel and box materials, furniture and tanned leathers. Then as these novelty items became more readily available from

outside sources, the emphasis shifted back to rough lumber suitable only for local consumption; the same as when the industry first started. And so it stands today, mostly rough lumber, produced from lower quality trees, used in local construction.

But this industry should not be discounted completely. It has been shown in this paper that at one time Cache Valley produced a multitude of products from its' timber. It has also shown that these products contributed to the basic economy of the valley in no small manner. And if it has been true in the past, it may also be true in the future.

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APPENDIX

The following is a list of mills in Cache Valley by the date of establishment.

Number	Date	Remarks
1	1859	Esias Edwards built an upright sawmill, water powered, in west part of Millville.
2	1859	James Ellis and Benjamin Williams built a saw pit in present downtown Logan, at 1st North and Center. Upright, hand-powered saw. Logged in Green Canyon. Converted to water power in 1860. Continued to operate into the 1890's.
3	1860	Thomas Win and Joel Ricks built a tannery where the Farmers Equity stands. Used native Douglas-fir bark crushed by a five-foot stone wheel to provide the tannic acid.
4	1860	W.D. Hendricks and W.T. VanYon built a horse-powered sawmill in Richmond. Only operated for a short time.
5	1860	W.D. Hendricks built a shingle mill in Richmond.
6	1860	Ezra Williams and Mr. Brunson built a sawmill several miles up Main Canyon above Smithfield.
7	1860	Sam Bradshaw built a shingle mill in the southeast part of Hyrum.
8	1860	Thomas Jessops built a water-powered shingle and lath mill in Millville.
9	1860	Thomas Hillyard and James Hancey built a shingle mill for William Gibson of Franklin, Idaho. This mill moved back and forth between Hyde Park and Franklin for several years.

Number	Date	Remarks
10	1860	Robert and James Meikle operated a tannery in Smithfield. Used thirty cords of Douglas-fir bark yearly.
11	1861	First Sawmill in Providence at the mouth of Spring Creek Canyon. Up and down saw. Only operated for a few years.
12	1861	J.G. Crape and H.C. Jackson built a sawmill near the fort on East Creek in Paradise. Later this mill moved further up the creek.
13	1863	Henry Gibson, W.C. Lewis and several others built a sawmill in High Creek Canyon above Richmond and operated this mill for many years.
14	1864	A grant was made by Cache County Court to John Nelson for a mill site on the Logan River where the road to Providence Canyon crosses. This grant was for a combination saw and shingle mill.
15	1864	A grant was made by the Cache County Court to Esias Edwards for a mill site and water privileges at Millville.
16	1864	Olie Rose and William Nelson built a sawmill on the Little Bear River just south of Hyrum. Logged in Blacksmith Fork and Dry canyons.
17	1864	A grant was made by Cache County Court to Thomas Hillyard, Thomas Tarbet and A.P. Raymond for a grist mill and a shingle mill site at Smithfield.
18	1865*	C.O. Card built a sawmill near the present Eighth Ward Mormon Church in Logan. Logged Green Canyon and Tabernacle Hollow in Logan Canyon.
19	1865*	Mr. Petersen built a planing mill across from Card's sawmill. Manufactured moldings, siding, and furniture.
20	1865*	Samuel Haight built a shingle and lath mill in the north part of Paradise close to the timber in the adjacent canyons.

Number	Date	Remarks
21	1865*	James Hancey built a wood lathe and made furniture in Hyde Park.
22	1865*	John Stoddard built a water-powered sawmill north of Newton. Logged the Clarkston hills to supply this mill.
23	1865*	Thomas X. Smith built the first sawmill in Logan Canyon at the present third dam. Timber for this mill came from Mill Hollow, Spray Hollow, Fletcher Hollow and Browns' roll off, all in Logan Canyon.
24	1865*	Mr. Affleck set up the second mill in Logan Canyon at the forks of the Logan River. This mill was water-powered.
25	1865	C.C. Bluemel and Anthon E. Anderson ran a sawmill on the canal at Third West and Second South in Logan. Later these men operated a box factory at the site of the United Order sawmill somewhere around the Logan River south of the amphitheater.
26	1866	County Court granted a sawmill site to Mr. Mickelson and Mr. Ricks, both of Logan.
27	1870	Peter Maughan built a sawmill at Red Banks in Logan Canyon. Logged spruce in White Pine Valley. Later this mill was sold to J. Crowther.
28	1870*	Garff and Haynes built a planing mill on the mill race just opposite the old Interurban Railway Company. Manufactured boxes, sashes, doors, etc.
29	1870	The town of Brigham City owned and operated a sawmill three miles south of Avon. This mill was called the Twin Mill and was water-powered.
30	1870	Joseph and Frank Davenport owned a water-powered sawmill in Davenport Canyon southeast of Avon. This mill used oxen exclusively for skidding, hauling, etc.

Number	Date	Remarks
31	1871	A water-powered circular sawmill was purchased by the Hyrum City Cooperative and installed two miles up Blacksmith Fork Canyon. This was the first lumber to be milled in Blacksmith Fork Canyon.
32	1873	The Hyrum Steammill Company was formed and bought a $3,000 steam mill in Logan. The mill was installed several miles south of the Hardware Ranch in Blacksmith Fork Canyon in a good stand of Douglas-fir.
33	1873	Alex B. Hill ran an up-and-down sawmill at Bald Head Mountain southeast of Avon.
34	1874	United Order of Hyrum installed a water-powered sawmill in Blacksmith Fork Canyon.
35	1874	The Hyrum Steam Mill Company purchased another steam engine for $750.00, shingle mill for $600.00 and a lot by the Oregon Short line Railroad in Logan for $750.00. These mills ran in Blacksmith Fork Canyon until 1881 when the timber became scarce and the company was absolved.
36	1874	In this year a lumber cooperative was formed with the following mills participating: 4 sawmills in Logan (one of these was a steam mill), 2 in Wellsville, 2 in Hyrum, 1 in Paradise, 1 in Millville, 1 in Providence, 1 in Hyde Park, 1 in Smithfield, and 2 in Franklin (1 steam). In addition, Hyrum and Paradise had 1 lath and shingle mill each.
37	1875*	United Order Lumber Company was located at 349 North Main, Logan.
38	1875	Hyrum Cooperative had a planing mill at Third East and First South, Hyrum.
39	1877	Temple Sawmill built up Temple Fork in Logan Canyon.
40	1877	Coe and Carter installed a sawmill in Hayes Canyon in Blacksmith Fork Canyon.

Number	Date	Remarks
41	1877	United Order and Manufacturing Company of Logan operated a sawmill and woodworking factory. This company cut and floated ½ million board feet per year.
42	1877*	United Order of Hyrum installed a sawmill at Dry Gulch, east of Hardware Ranch in Blacksmith Fork Canyon. Also, several tie camps were established in Dry Gulch. Report of lots of logging in Big Dry Hollow in Blacksmith Fork Canyon.
43	1878	A sawmill owned by J. Crowther, Samuel Pike, and N.M. Hodges was located on the summit between Bear Lake and Cache counties.
44	1878	A water-powered sawmill at Hayes Canyon burned in the fall of 1878.
45	1879	The United Order Foundry built a shingle mill for Samuel Holt and Company.
46	1879	The United Order Manufacturing and Building Company of Logan bought a thirty horsepower steam mill and installed it twenty-five miles up Logan Canyon.
47	1880	The United Order Lumber Company operated a log boom at the mouth of Logan Canyon.
48	1881	The Bear Lake Lumber Company organized and operated for two years. This company was composed of sawmill operators from St. Charles, Bloomington, Paris and Liberty.
49	1882*	The United Order mill in Logan Canyon burned and J. Crowther purchased the remains and moved it to the Old Maughan mill site at Red Banks.
50	1883	Edwards Miles operated a water-powered sawmill at Bald Head south of Avon.
51	1883	William Thomas owned a sawmill in Paradise plus a shingle mill in the Hollow in the north edge of Paradise.

Number	Date	Remarks
52	1886	Ira Ame owned a sawmill on Spring Creek near Wellsville.
53	1889	A sawmill located in Moss Canyon.
54	1889	A sawmill in White Canyon in Franklin Basin.
55	1890*	A sawmill located in Providence just east of the South Bench. Logged in Providence Canyon. Produced boxes, shingles and lumber.
56	1890*	Another mill in Providence owned by Mr. Checketts. Located at the mouth of Providence Canyon. Thirty teams of horses per day hauled logs out of Providence Canyon.
57	1890*	J. Crowther operated the United Order Manufacturing and Building Company sawmill located on the Logan River just above the site of the old Pond Fox Farm.
58	1891	In this year there were 4 planing mills, 5 sawmills, and 4 sash and door factories all operating within the Logan City limits.
59	1892	A steam-powered sawmill owned by Johnnie Miles was located just off the La Platte Mine south of Avon.
60	1893	J. Crowther operated a sawmill near the old Girls Camp up Logan Canyon. Moved this mill to Card Canyon in 1900 and then to Hodge Canyon twenty-three miles up Logan Canyon.
61	1893	A sawmill located five miles up the main canyon from Beavers Landing in the lower part of Franklin Basin.
62	1900	J.A. Montrose operated a sawmill at Beaver Fork adjacent to the present ski area. This mill was called the "Klondike" mill.
63	1904	Alex M. Hill operated the old Providence Cooperative mill.

Number	Date	Remarks
64	1904	Alex M. Hill ran a sawmill at the head of Dry Saddle Creek in Blacksmith Fork Canyon. Moved this mill to private land in 1905 due to pressure from the Forest Service. Operated this mill in several locations in Blacksmith Fork Canyon for several years.
65	1908	Alex M. Hill purchased another sawmill and operated it one and one-half miles north of Monte Cristo Peak in the southern end of Cache Valley.

*The dates shown with the asterisk are approximate.

The following photographs were taken about 1900. These photographs are of the "Kondike" mill mentioned previously and are typical of Cache Valley's sawmills around the turn of the century.

FIGURE 2

"KONDIKE" MILL - 1900

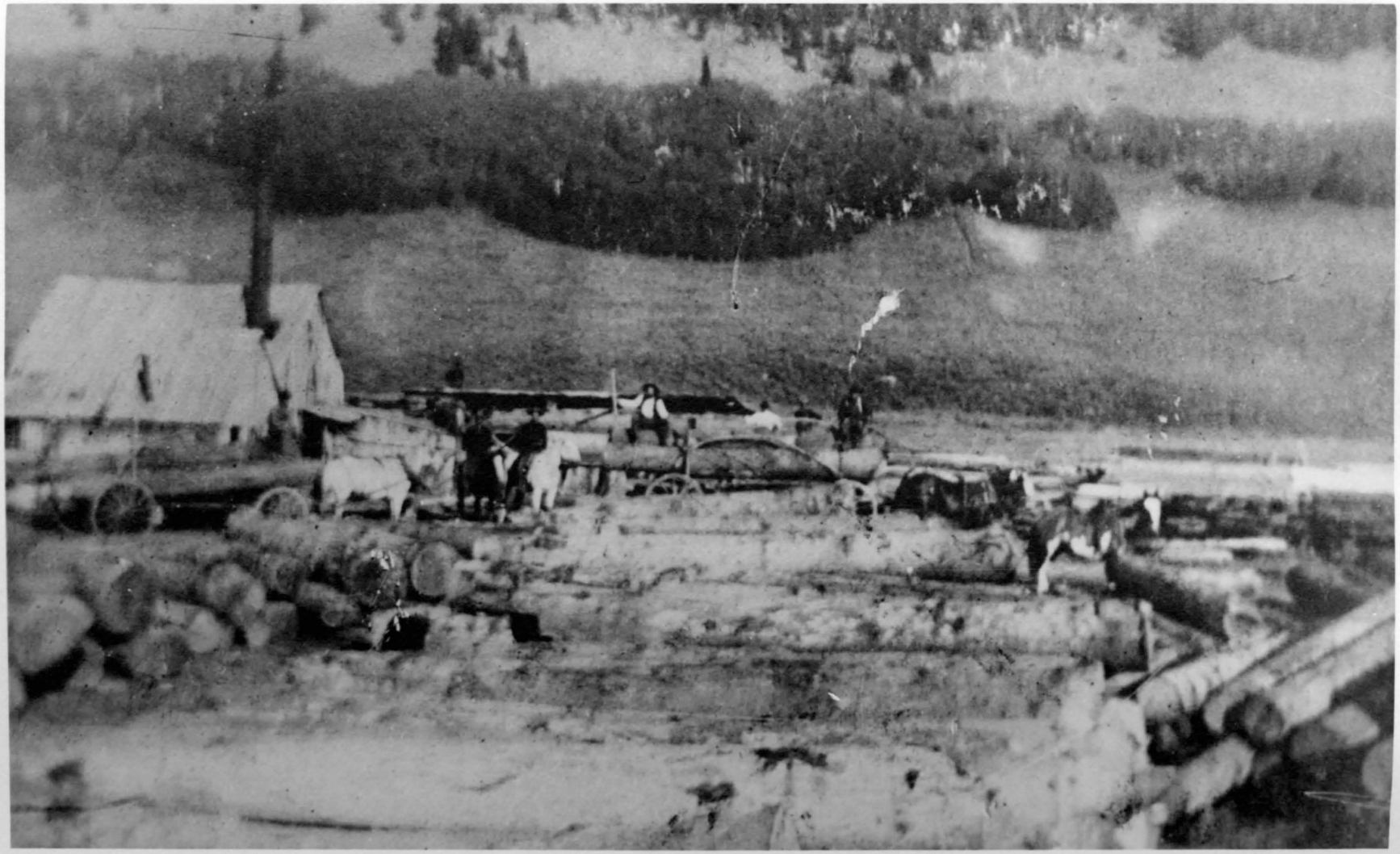


FIGURE 3

"KONDIKE" MILL - 1906

The following table gives an example of one mill's profit and production. While not all the sawmills in Cache Valley could be expected to produce in a like manner, it does give some idea as to the production that could be expected of Cache Valley's sawmills.

TABLE 5

PROFIT OF THE WHITE PINE U.O. MILL[a]
(1874-1880)

Date	Production of Lumber	Production of Shingles
1874	920 M. Bd. ft.	67 M.
1875	500 " " "	1,049 "
1876	624 " " "	612 "
1877	633.76 " " "	1,087 "
1879	430 " " "	941 "
1880	450 " " "	
Total -	3,557.76 M. Bd. ft.	3,756 M.

Ave. price of lumber - $20.00/M.
Total selling price - $71,155.20

Costs including hauling, marketing and incidental - $17.50/M.
Total costs - $62,260.77

Net Gain for lumber - $8,864.43

Ave. price of shingles - $3.50/M.
Total selling price - $13,146.00

Costs including hauling, marketing and incidental - $2.75/M.
Total costs - $10,329.00

Net Gain for shingles - $2,817.00

Lath Gain - $690.00

Total Net Gain - $10,371.43

[a]Tullidge's Quarterly Magazine, Vol. 2, No. 2, 1882. p. 558.

LIST OF TREE SPECIES MENTIONED IN THIS PAPER

Scientific Name[a]	Common Names[b]
Pseudotsuga menziesii	Douglas-fir Red fir Red pine
Pinus ponderosa	Ponderosa pine Yellow pine
Pinus contorta	Lodgepole pine
Picea engelmannii	Engelmann spruce White pine
Populus tremuloides	Quaking aspen Asp.
Abies lasiocarpa	Sub Alpine fir Alpine fir Balsam pine
Abies concolor	White fir Balsam pine
Juniperous osteosperma	Utah juniper Utah cedar
Populus balsamifera	Balsam popular Cottonwood

[a]Scientific names from: CHECK LIST OF NATIVE AND NATURALIZED TREES OF THE UNITED STATES (Including ALASKA), by Elbert L. Little, Jr., Agriculture Handbook No. 41. Washington, D.C., 1953.

[b]The accepted common name is the underlined name. The other names were local names and not accepted at the present time.

PARTIAL LIST OF WOOD PRODUCTS
PRODUCED BY CACHE VALLEY
LUMBERING INDUSTRY

Ties	Tanning (Bark)
Pickets	Boxes
Sills	Window Sashes
Posts	Doors
Joists	Shingles
Studs	Whiskey
Plates	Lath
Rafters	Brooms
Collor Beams	Furniture
Square Edge Lumber	Cabinets
Flooring	Blinds
Rustic	Poles
Moldings	Charcoal
Barrels	Drum Sticks

The following is a list showing any modification of boundaries of National Forests within Cache Valley.

Abbreviations used in this list are:

Proc. - Proclamation

E.O. - Executive Order

Public - Public Law

Stat. - Statute

F.R. - Federal Register

ESTABLISHMENT AND MODIFICATION OF NATIONAL FOREST BOUNDARIES WITHIN CACHE VALLEY[a]

National Forest	Kind and Number	Date Approved	Date Effective	Citation	Effect
Logan	Proc.	5-29-03		33 Stat. 2307	Established.
Logan	Proc.	5-28-06		34 Stat. 3206	Combined with other land and established Bear River. Discontinued name.
Bear River	Proc.	5-28-06		34 Stat. 3206	Established. Combined Logan and other lands.
	March 4, 1907 - Act of Congress			34 Stat. 1269	
	"The Forest Reserves shall hereafter be known as National Forests."				
Cache	E.O. 802	5-25-08	7-1-08		Established from part of Bear River.
Bear River	E.O. 801 E.O. 802				Discontinued name.

National Forest	Kind and Number	Date Approved	Date Effective	Citation	Effect
Cache	Proc. 1176	1-24-12		37 Stat. 1724	Added and eliminated lands.
Cache	E.O. 2176	4-21-15			Eliminated land.
Cache	E.O. 2179	4-21-15	7-1-15		Added entire Pocatello Forest
Cache	Proc. 1397	10-9-17		40 Stat. 1702	Eliminated land.
Cache	E.O. 3262	4-27-20			Eliminated land.
Cache	Proc. 1736	3-16-25		44 Stat. 2573	Added land.
Cache	Public 43	2-25-32		47 Stat. 55	Added land.
Cache	E.O. 6172	6-15-33			Added land.
Cache	E.O. 7378	5-22-36		1 F.R. 446	Added land.
Cache	Proc. 2333	4-28-39		4 F.R. 1763 53 Stat. 2537	Added land.
Cache	E.O. 8130	5-11-39		4 F.R. 2017	Transferred land to Caribou.
Cache	Proc. 2356	9-6-39		4 F.R. 3860 54 Stat. 2648	Added land.
Cache	Proc. 2484	5-12-41		6 F.R. 2457 55 Stat. 1641	Added land.
Cache	E.O. 9124	4-7-42	7-1-42	7 F.R. 2692	Transferred land to Caribou.

[a] Establishment and Modification of National Forest Boundaries - A Chronologic Record 1891 - 1962 (Compile in the Surveys and Maps Branch Division of Engineering, U.S. Forest Service, Washington, D.C., September 1962).

FIGURE 4

FORESTED AREAS WITHIN CACHE COUNTY

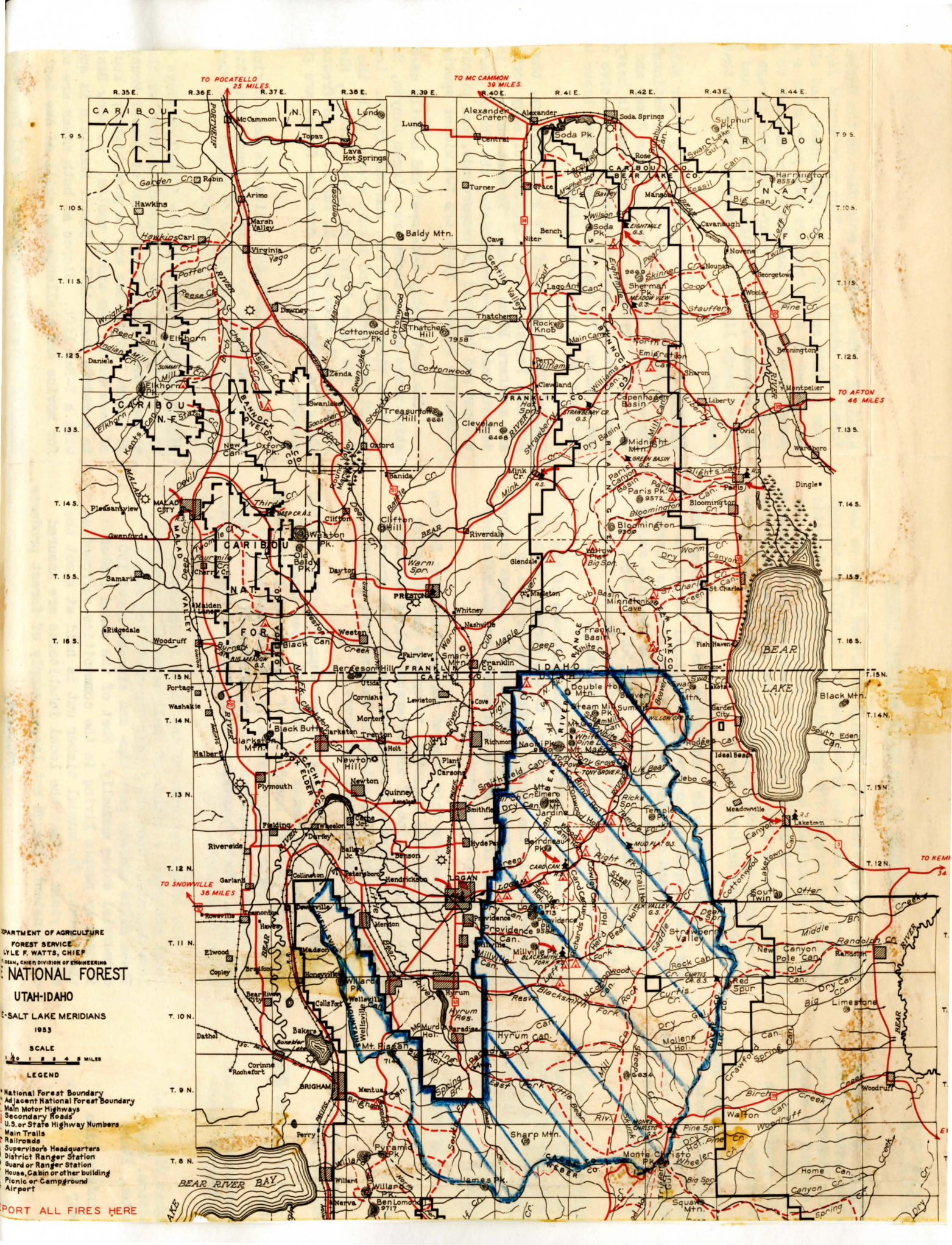
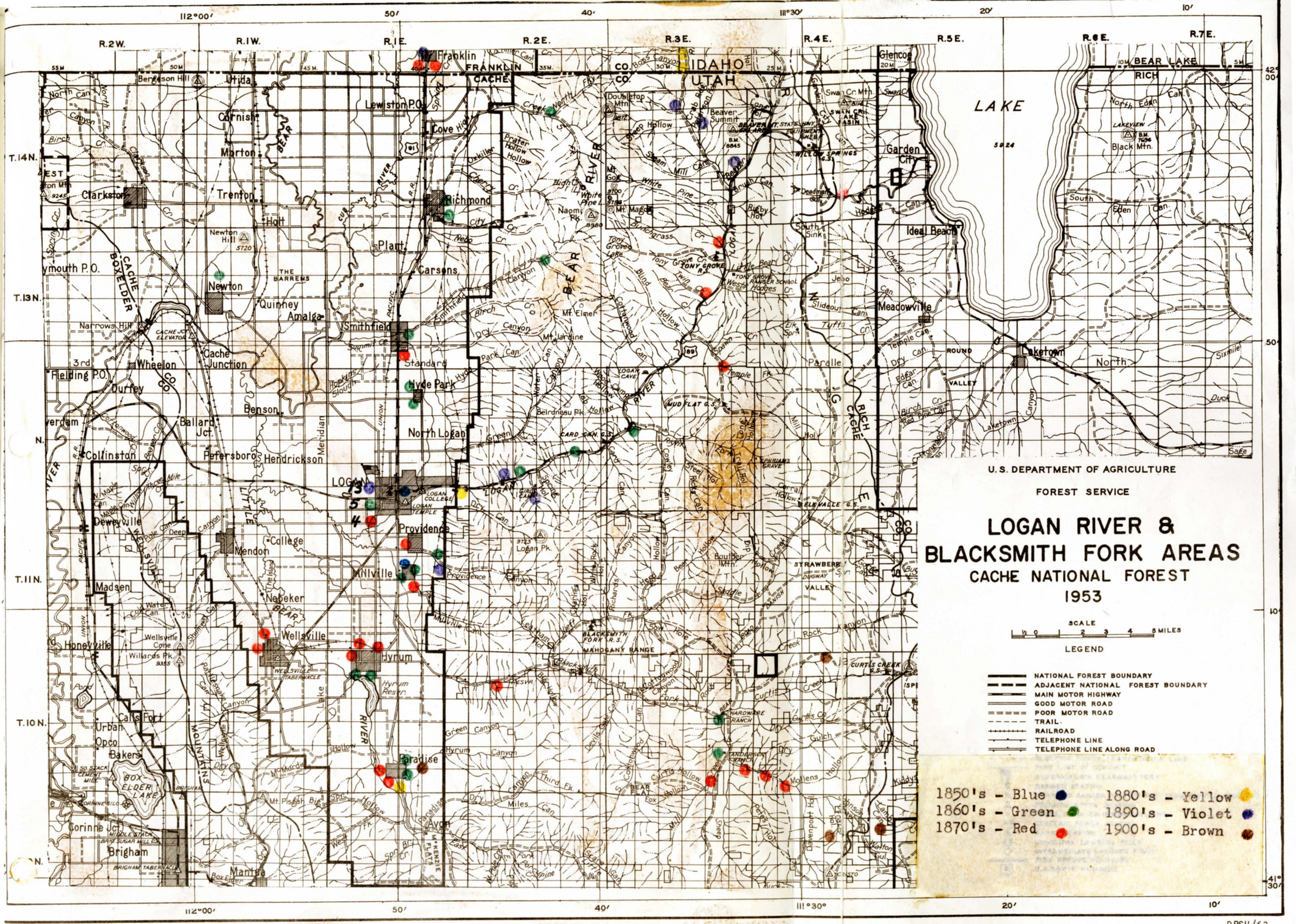

TO POCATELLO 25 MILES
TO MC CAMMON 39 MILES
TO AFTON 46 MILES
TO SNOWVILLE 36 MILES
R. 35 E.
R. 36 E.
R. 37 E.
R. 38 E.
R. 39 E.
R. 40 E.
R. 41 E.
R. 42 E.
R. 43 E.
R. 44 E.
T. 9 S.
T. 10 S.
T. 11 S.
T. 12 S.
T. 13 S.
T. 14 S.
T. 15 S.
T. 16 S.
T. 15 N.
T. 14 N.
T. 13 N.
T. 12 N.
T. 11 N.
T. 10 N.
T. 9 N.
T. 8 N.
CARIBOU N.F.
CARIBOU NAT. FOR.
CACHE N.F.
BEAR LAKE CO.
FRANKLIN CO.
CACHE CO.
IDAHO
BEAR LAKE
McCammon
Lava Hot Springs
Soda Springs
Alexander
Lund
Topaz
Arimo
Marsh Valley
Downey
Thatcher
Cleveland
Oxford
Preston
Franklin
Logan
Paris
Bloomington
Montpelier
Bennington
Dingle
Liberty
Sharon
Ovid
Wardboro
Georgetown
Nounan
Soda Pk.
Sherman Pk.
Paris Pk.
Bloomington
Cleveland Hill
Treasureton Hill
Clifton Hill
Bergeson Hill
Newton Hill
Naomi Pk.
Mt. Elmero
Jardine
Meadowville
Laketown
Randolph
Woodruff
Garden City
Ideal Beach
Fish Haven
Sharp Mtn.
Monte Cristo Pk.
James Pk.
Pyramid Pk.
Ben Lomond
Willard Pk.
Mt. Pisgah
Bakers
Corinne
Brigham
Perry
Willard
Harrington
Sulphur Pk.
Swan Lake Gul.
Big Can.
Left Fk.
Pine Cr.
Stauffer Cr.
Skinner Cr.
Meadow View G.S.
Eightmile G.S.
Strawberry G.S.
Green Basin G.S.
Elk Valley G.S.
Curtis Cr. G.S.
Big Spring Hol.
Mollene Hol.
Hyrum Res.
Hyrum Can.
Paradise Hol.
Spring Hol.
Spring Br.
Pine Spr.
Home Can.
Canyon Cr.
Squaw Mtn.
Black Mtn.
South Eden Can.
Meadowville
Laketown
Laketown Can.
Cottonwood
South Twin
Otter Creek
Middle Br.
Randolph Cr.
New Canyon
Pole Can.
Old Can.
Dry Can.
Big Limestone
Rock Can.
Red Spur
Curtis
Crawford Spring
Birch Creek
Woodruff
Walton
Home Can.
Canyon
Spring
Dry Cr.
Pine Cr.
Wheeler Cr.
Big Spr.
Trail Hol.
Steal Hol.
Right Fk.
Left Fk.
Deep Spr.
Saddle
Strawberry Valley
Mud Flat G.S.
Card Can.
Crowley Can.
Richards Can.
Herd Hol.
Bear Hol.
Elk Valley G.S.
Blacksmith Fork
Resvr.
Rock Can.
Curtis Cr. G.S.
Red Spur
Dry Can.
Big Limestone
Mollene Hol.
Hyrum Can.
Paradise Hol.
Spring Hol.
Spring Br.
Pine Spr.
Home Can.
Canyon Cr.
Squaw Mtn.
Monte Cristo Pk.
James Pk.
Sharp Mtn.
Pyramid Pk.
Ben Lomond
Willard Pk.
Mt. Pisgah
Bakers
Corinne
Brigham
Perry
Willard
Harrington
Sulphur Pk.
Swan Lake Gul.
Big Can.
Left Fk.
Pine Cr.
Stauffer Cr.
Skinner Cr.
Meadow View G.S.
Eightmile G.S.
Strawberry G.S.
Green Basin G.S.
Elk Valley G.S.
Curtis Cr. G.S.
Big Spring Hol.
Mollene Hol.
Hyrum Res.
Hyrum Can.
Paradise Hol.
Spring Hol.
Spring Br.
Pine Spr.
Home Can.
Canyon Cr.
Squaw Mtn.
Monte Cristo Pk.
James Pk.
Sharp Mtn.
Pyramid Pk.
Ben Lomond
Willard Pk.
Mt. Pisgah
Bakers
Corinne
Brigham
Perry
Willard
Harrington
Sulphur Pk.
Swan Lake Gul.
Big Can.
Left Fk.
Pine Cr.
Stauffer Cr.
Skinner Cr.
Meadow View G.S.
Eightmile G.S.
Strawberry G.S.
Green Basin G.S.
Elk Valley G.S.
Curtis Cr. G.S.
Big Spring Hol.
Mollene Hol.
Hyrum Res.
Hyrum Can.
Paradise Hol.
Spring Hol.
Spring Br.
Pine Spr.
Home Can.
Canyon Cr.
Squaw Mtn.
Monte Cristo Pk.
James Pk.
Sharp Mtn.
Pyramid Pk.
Ben Lomond
Willard Pk.
Mt. Pisgah
Bakers
Corinne
Brigham
Perry
Willard
BEAR RIVER BAY
DEPARTMENT OF AGRICULTURE
FOREST SERVICE
LYLE F. WATTS, CHIEF
NATIONAL FOREST
UTAH-IDAHO
SALT LAKE MERIDIANS
1953
SCALE
MILES
LEGEND
National Forest Boundary
Adjacent National Forest Boundary
Main Motor Highways
Secondary Roads
U.S. or State Highway Numbers
Main Trails
Railroads
Supervisor's Headquarters
District Ranger Station
Guard or Ranger Station
House, Cabin or other building
Picnic or Campground
Airport
REPORT ALL FIRES HERE

FIGURE 5

LOCATION OF SAWMILLS BY DECADES


U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
LOGAN RIVER & BLACKSMITH FORK AREAS
CACHE NATIONAL FOREST
1953
SCALE
0 1 2 3 4 5 MILES
LEGEND
NATIONAL FOREST BOUNDARY
ADJACENT NATIONAL FOREST BOUNDARY
MAIN MOTOR HIGHWAY
GOOD MOTOR ROAD
POOR MOTOR ROAD
TRAIL
RAILROAD
TELEPHONE LINE
TELEPHONE LINE ALONG ROAD
1850's - Blue
1860's - Green
1870's - Red
1880's - Yellow
1890's - Violet
1900's - Brown
DPSU/62